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IUPAC-NIST Solubility Data Series. 79. Alkali and Alkaline Earth Metal Pseudohalides1

Jiri Hálal

This volume presents solubility data of azides, cyanides, cyanates, and thiocyanates of alkali metals, alkaline earth metals, and ammonium. Covered are binary and ternary systems in all solvents. The literature has been covered up to the middle of 2001, and there was a great effort to have the literature survey as complete as possible.

NIST Recommended Rest Frequencies for Observed Interstellar Molecular Microwave
Transitions—2002 Revision177

Frank J. Lovas

Critically evaluated transition frequencies for the molecular transitions detected in interstellar and circumstellar clouds are presented. The tabulated transitions are recommended for reference in future astronomical observations in the microwave and millimeter wavelength regions. The transition frequencies have been selected through a critical examination and analysis of the laboratory spectral data obtained from the literature. The information tabulated includes the species identity, transition frequency, uncertainty, and quantum state labels. For convenience, representative line antenna temperatures are listed for a typical astronomical source for each transition, and the references are cited for the laboratory and astronomical literature that have been employed.

Revised and Updated Thermochemical Properties of the Gases Mercapto (HS), Disulfur
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Katharina Lidders

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Allan H. Harvey and Eric W. Lemmon

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Structure and Vibrations of Lanthanide Trihalides. An Assessment of Experimental and
Theoretical Data377

Attila Kovács and Rudy J. M. Konings

An assessment of experimental and theoretical data on the structure and molecular vibrations of all the LnX₃ lanthanide trihalides is presented. This review includes 114 references to recent advanced studies. These data facilitated the confirmation of previously suggested trends in the molecular properties of the title compounds and a reliable estimation of the data of less-studied LnX₃ molecules.